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Creating Better Spaces

Landscape
Protection



Aesthetically pleasing crash barriers as ‘street furniture’ – why functional will no longer do

Abigail Kellett, Product Manager at Marshalls PLC explores the importance of crash barriers that can withstand vehicular attacks

Asking whether architects value aesthetics is rather like asking if a mathematician appreciates numbers.

But if aesthetics in the built environment can be elevated only at the expense of security or safety standards, then architects must grudgingly concede to the demands of functionality.

The involvement of vehicles in recent atrocities in Europe in the last 12 months – such as in Nice during July, Berlin in December, London in March, and Stockholm in April – have tragically highlighted why the deployment of robust physical barriers is a growing priority in public spaces. Together, killing over 100 people and injuring more than 550, they were brutal reminders that vehicles can be every bit as destructive as bullets and bombs.

Crowded places such as shopping centres, plazas and sports stadia increasingly need barriers that can withstand vehicular attacks, and then there’s also the ever-present threat of cars veering off the road because the driver is reckless, drunk or asleep. Protective design can deter, delay and prevent vehicle collision around accident blackspots.

But urban planners are mindful of the adverse psychological impact on citizens of imposing barriers. Another consideration is permeability: pedestrians must not be impeded along with rogue drivers. Therefore, unsurprisingly, design-led forms of secu-

rity barriers such as crash-tested seating, planters and cycle racks are gaining ground with architects and specifiers.

But how easily can urban planners find crash-tested street furniture that is not only visually appealing on its own merits, but also in keeping with the location’s wider architectural style?

Marshalls, the UK’s leading hard landscaping manufacturer and street furniture specialist, believes that, while security must always be paramount, traditional forms of protective street furniture can often be too imposing and have a detrimental effect on a landscape’s visual appeal.

Marshalls recruited IFSEC Global to test this assumption. IFSEC Global polled hundreds of architects, consultants, security professionals, facilities managers and specifiers.

With around four in five (79%) respondents involved in a growing number of projects specifying aesthetically-pleasing, crash-tested perimeter protection over the last three years, there has apparently been a sea change in priorities when it comes to urban planning briefs.

There’s a clear and growing appetite for aesthetically-pleasing, crash-tested perimeter protection – but have manufacturers kept up with a trend observed even within a short, three-year timespan? Apparently not, the findings indicate.



The demand for a wider range of aesthetically-pleasing, crash-tested perimeter protection than is currently available is enormous – equally so regardless of who we asked in the design and procurement chain, or where they were based in the world. Asked if they thought there was demand in the market for more of these products, a resounding 94% agreed.

Security professionals were equally as emphatic in their desire for more visually-appealing security products, with 95% wanting more choice in the market.

Steve Reddington, street furniture commercial director at Marshalls, says the findings back up the company's own, anecdotal experience. "The research confirms the conversations we are having with our customers in the security industry," he says. "We work closely with many landscape architects, and from the conversations we are having, it is clear the market is changing" he adds.

Creating harmony

Mindful of this reservoir of untapped demand, Marshalls has pioneered a paradigm shift in how street furniture and crash-tested perimeter protection can coexist more harmoniously.

By combining the two, Marshalls hopes that architects never have to compromise on aesthetic when designing public spaces. Where once they might have to specify a seat and a bollard – or reluctantly jettison the seat – now they can just specify a protective seat such as Marshalls' Igneo75/40.

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But not everyone has embraced the concept of protective street furniture. Many involved in the built environment fear that it fosters homogeneity and blandness in urban landscapes.

The challenge for manufacturers of street furniture is to prove such fears unfounded through an innovative, design-led approach. They must equip architects and specifiers with the means to complement, rather than jar with an urban landscape’s prevailing style.

The aesthetic value of a product even trumps price when respondents were asked to rank their priorities when procuring crash-tested perimeter protection. Nevertheless, it is reasonable to surmise that only a lucky few in the architect profession can honestly claim that money is truly no object in their latest project.

Thankfully, street furniture can play a key role in preserving the architect’s grand vision, even as 21st century spaces are fortified against vehicular or explosive attack. But is there enough crash-tested street furniture on the market to meet the eclectic demands of urban planners?

It is surely no surprise, then, that architects and specifiers should be overwhelmingly interested in at least 2-3 crash-tested versions of lighting, seating, bollards, planters, litter bins and post and rail products. Only 6% professed to not be interested in any.



Ranked third out of six options given, the demand for the tried-and-trusted bollard remains strong even as imaginative alternatives emerge. Nevertheless, comparable levels of demand for crash-tested lighting, seating, planters and litter bins suggests that bollards are no longer the default choice of protective barrier. Products such as Marshalls’ Giove Planter, Geo Cycle Stand and Geo Litter Bins have increased in popularity over recent times.

But the dramatic elevation in the terror threat over recent years has thrown down a new challenge to architects, making public spaces as secure as possible without undermining the aforementioned gains.

The findings from our survey, along with the trends explored above, suggest that the future of protective street furniture will be defined by its discrete incorporation within design-led products like seating, lighting and planters.

A new frontline against terrorism

Terrorist organisations are now increasingly focused on using vehicles to kill, maim and cause panic. But rather than erecting concrete barricades in defence, Jaz Vilkuh, Managing Director of Landscape Protection at Marshalls, argues that urban planners must consider a holistic approach focusing on protection and design to ensure people don't feel a continual threat

Vehicles have become the weapon of choice for terrorists. Stripped down to the bare-bones of an individual with motivation, intent and access to a car, van or lorry, the attacks we've seen across Europe over the last few years have cut the time between planning an attack and execution to a matter of hours.

This new threat is far more difficult to predict and has so far prompted a primitive and unsophisticated response, which has become a blanket reaction across our towns and cities. According to the 2017 EU Terrorism Situation & Trends report, the increase in the number of anti-terror barrier installations around landmarks, key infrastructure and public spaces with high footfall has reflected the sharp rise in vehicle attacks.

But fortifying urban areas in this way can convey mixed signals. Yes, concrete barricades send a clear message that threats are taken seriously, but in doing so they remind the public of the need for protection and creates an environment of fear. In a recent Guardian article, columnist Simon Jenkins noted: "Parts of central London already look cowed and afraid, as ugly barriers go up around tourist sites."

Reducing the perception of risk

It's clear that such Hostile Vehicle Mitigation (HVM) measures can unnerve the public and feed the feeling of imminent threat. And while the battle is primarily against terror, addressing this percep-



tion should be just as key a priority for those designing and securing cities from terrorist or criminal activity. It's a vicious circle: the higher the perception of risk, the greater threat individuals feel. This applies directly to the presence of visible anti-terror security measures, which have been found to increase levels of suspicion, tension and fear among the public.

It's a reaction that is hardwired into the human brain. Anxiety worsens cognitive functioning as our attention is drawn away from day-to-day life and towards the threatening stimuli that confronts us. In seeking to protect places, the very action of fortifying our town and city centres is increasing the fear that people feel. This can all too easily translate into action, with falling footfall severely hitting businesses and urban areas.

Tackling the issue through aesthetic design

Installing protective measures can change the

nature of these urban spaces and addressing this presents a new challenge. In her study, *Invisible Security: The Impact of Counter-Terrorism on the Built Environment*, Rachel Briggs writes: "It has been argued that 'security' has become the justification for measures that threaten the core of urban social and political life – from the physical barricading of space to the social barricading of democratic society – that rising levels of security in cities will reduce the public use of public space."

To allay this, urban designers should look to adopt a holistic approach to ensure that protection is integrated in a way that doesn't change how people feel about and use their town and city centres. In essence, using measures that are unobtrusive and can be hidden in plain sight.

It's pleasing to see that these considerations are increasingly forming part of urban security planning. Architects, city planners and security experts are less willing to compromise on aesthetics when it comes to security. According to a recent report we produced with IFSEC Global, 79% of these professionals have seen the number of projects requiring aesthetically focused perimeter protection increase over the last three years. In addition, 94% believe that demand will ramp up across both the UK and EU.

Deter, deflect and defend

One option is a multi-layered strategy that is designed to reduce the threat long before a vehicle can reach its target, while in keeping with an environment's aesthetics. As a first step, designers could look at limiting the speed or mitigate the angle of approaching traffic. This could include changes to the layout of the road network, the addition of traffic calming features, such as chicanes, speed bumps, restricted-width lanes, and the creation of pedestrianised areas and 'buffer zones', which demarcate traffic from pedestrian areas. Secondly, new kerbing systems can be installed to deflect oncoming vehicles back on the carriageway and away from vulnerable areas.

Rather than using concrete blocks or metal barriers as a defensive line to implement a high level of



Image: © 2016 Sarel Jansen

HVM, architects should consider reinforced landscape furniture such as planters, seating, litter bins, lighting columns, cycle stands and bollards. Although these products look like regular landscape furniture, they are built with fortified PAS 68/IWA 14.1 certified cores. This is the latest Publicly Available Specification for products used to assist in terrorism prevention, which specify a classification for vehicle security barriers and their foundations when subjected to impact. The foundations can be built to varying depths and using the strongest specification, a single piece of furniture can stop a 7.5-tonne articulated lorry travelling at 50mph.

From shopping centres and sports stadia to rail stations, leisure venues and our high streets, any space where people gather is now considered to be at risk. But protecting those spaces is a complex balance between making people feel safe and like they're not living in a controlled, militarised environment. Given the potential social and commercial impacts that metal barriers and concrete barricades can have, it's vital that future risk assessments on infrastructure and public spaces focus on aesthetics, keeping protective measures out of sight and out of mind.

Nobody is running scared here.

Anti-terror solutions that don't spread fear



Build inner strength with Marshalls Landscape Protection.

Anti-terror measures should never make the public feel more fear. This inner belief is at the heart of the Marshalls Landscape Protection philosophy. By integrating anti-terror protection into 'everyday' objects we help the public stay safe and crucially feel safe every time they visit your space.

Learn more and see the full range at marshalls.co.uk/landscapeprotection


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